

**Flood Control Project Maintenance
Levee Inspections**

Fall 2012 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

MA0007	Overall LMA Rating	Total LMA Miles						
Sutter Maintenance Yard Maintenance Area 0007	A	12.07						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation					0.07			
Encroachments					3.88	0.03		
Slope Stability	0.36		0.36	2.98%				
<i>Supplemental</i>								
USACE Erosion Survey	0.02		0.02	0.17%				
<i>LMA Totals:</i>	0.38	0.00	0.38	3.15%	3.95	0.03	0.00	0.00

**Flood Control Project Maintenance
Levee Inspections
LMA District Cover Sheet
Fall 2012 Levee Inspection Results**

Sutter Maintenance Yard Maintenance Area 0007

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			A	

** Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

*
SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2012 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0007

Waterway			Bank	Unit Miles
Unit No. 01 Feather River			Right	12.07
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	03/28/2012 - 03/28/2012		09/25/2012 - 09/25/2012	
DWR Inspector	Clay Thomas		Clay Thomas	
Accompanied By	Jason Cooper		Jason Cooper	

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway							Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River							Right	12.07	09/25/2012 09/25/2012	Clay Thomas
LMR No.	Levee Mile		Category	Item	* Location	Rating + + + + Ma	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
1			Earthen Levee	Operations & Maintenance Manuals	WS	A Ma		° °	° °	4
DWR ID: DWR_MA0007_01_s_2012_4										
2			Earthen Levee	Emergency Supplies & Equipment	WS	A Ma		° °	° °	6
DWR ID: DWR_MA0007_01_s_2012_6										
3			Earthen Levee	Flood Preparedness & Training	WS	A Ma		° °	° °	11
DWR ID: DWR_MA0007_01_s_2012_11										
4	0.00	12.05	Earthen Levee	Vegetation	LS	A Ma	V2 : Remove the wild growth other than native grasses from the levee slopes.	39.311340 ° -121.637495 °	39.439666 ° -121.641692 °	1 Y
DWR ID: DWR_MA0007_01_f_2012_1										
5	0.00	12.05	Earthen Levee	Vegetation	WS	A Ma	V2 : Remove the wild growth other than native grasses from the levee slopes.	39.311340 ° -121.637495 °	39.439665 ° -121.641691 °	3 Y
DWR ID: DWR_MA0007_01_f_2012_3										
6	0.01	1.73	Earthen Levee	Encroachments	LS	M En	DT : Ditch	39.311297 ° -121.637490 °	39.334365 ° -121.633975 °	42 Y
DWR ID: DWR_MA0007_01_s_2012_42										
7	1.21	1.21	Earthen Levee	Encroachments	WS	U En	BU : Building	39.327187 ° -121.632395 °	39.327187 ° -121.632395 °	33 Y
DWR ID: DWR_MA0007_01_s_2012_33										
8	1.55	1.55	Supplemental	USACE Erosion Survey	WS	M Ma	Inspector Comments: 2011 - The toe of the levee has been excavated by the land owner. Small holes throughout the site have been filled with a plaster like substance. Large canal on landside slope and over the levee toe. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: FHR_47-5_R]	39.334240 ° -121.633908 °	39.332000 ° -121.633178 °	2
DWR ID:										
9	2.88	2.88	Earthen Levee	Encroachments	LS	M En	PI : Pipe Inspector Comments: 24 inch pipe L/S toe parallel with levee.	39.349857 ° -121.630632 °	39.349857 ° -121.630632 °	390 Y
DWR ID: DWR_MA0007_01_s_2012_390										
10	3.85	5.37	Earthen Levee	Encroachments	LS	M En	DT : Ditch	39.359942 ° -121.640780 °	39.379262 ° -121.650698 °	39 Y
DWR ID: DWR_MA0007_01_s_2012_39										
11	4.29	4.29	Earthen Levee	Encroachments	LS	M En	CR : Crops	39.364815 ° -121.646005 °	39.364815 ° -121.646005 °	389
DWR ID: DWR_MA0007_01_s_2012_389										
12	4.37	4.37	Supplemental	USACE Erosion Survey	WS	M Ma	Inspector Comments: 2012: Oversteepened slope with failing rock (from repair completed in 1954). Likely slope stability issues. [2012 Site ID: FHR_50-9_R]	39.367612 ° -121.647866 °	39.366736 ° -121.647217 °	8 Y
DWR ID:										
13	5.37	5.37	Earthen Levee	Vegetation	LS	M En	V6 : Landscaping	39.379487 ° -121.650604 °	39.379487 ° -121.650604 °	10
DWR ID: DWR_MA0007_01_s_2012_10										

* Location	** Rating	+ Issue Type
LS : Land Side	A : Acceptable	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	En : Enforcement
	N : Not Inspected/Rated	
	C : Corrected	
	A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway				Bank	Unit Miles	Inspection Start/End	Inspector	
Unit No. 01 Feather River				Right	12.07	09/25/2012 09/25/2012	Clay Thomas	

LMR No.	Levee Mile		Category	Item	Location *	Rating ** +	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
14	5.38	5.98	Earthen Levee	Encroachments	WS	M En	AT : Agricultural tilling Inspector Comments: This site is property of Cilker Revocable Trust, it has an encroachment violation notice dated 7-23-2012, enforcement action : 2011-321. The stockpile has been removed, excavation at the levee toe is still present.	39.380272 ° -121.649622 °	39.380527 ° -121.638423 °	5 Y
DWR ID: DWR_MA0007_01_f_2012_5										
15	5.41	5.41	Earthen Levee	Encroachments	WS	M En	TA : Tank	39.380153 ° -121.650447 °	39.380153 ° -121.650447 °	9 Y
DWR ID: DWR_MA0007_01_s_2012_9										
16	5.42	5.42	Earthen Levee	Encroachments	LS	U En	BU : Building	39.379947 ° -121.650525 °	39.379947 ° -121.650525 °	32 Y
DWR ID: DWR_MA0007_01_s_2012_32										
17	6.62	6.62	Earthen Levee	Erosion / Bank Caving	LS	C Ma	E1 : Note and monitor erosion site.	39.386378 ° -121.632572 °	39.386378 ° -121.632572 °	18
DWR ID: DWR_MA0007_01_s_2012_18										
18	9.05	9.41	Earthen Levee	Slope Stability	LS	M Ma	S1 : Repair slope instability. Inspector Comments: this appears to be cut into the levee.	39.409363 ° -121.634667 °	39.412797 ° -121.632463 °	7
DWR ID: DWR_MA0007_01_s_2012_7										
19	9.79	9.79	Earthen Levee	Encroachments	LS	U En	BU : Building	39.416384 ° -121.634503 °	39.416384 ° -121.634503 °	45 Y
DWR ID: DWR_MA0007_01_s_2012_45										
20	9.84	9.84	Earthen Levee	Encroachments	LS	M En	EQ : Equipment	39.416921 ° -121.634802 °	39.416921 ° -121.634802 °	12
DWR ID: DWR_MA0007_01_s_2012_12										
21	11.63	11.69	Earthen Levee	Vegetation	LS	M En	V6 : Landscaping	39.437119 ° -121.645860 °	39.437949 ° -121.646280 °	43 Y
DWR ID: DWR_MA0007_01_s_2012_43										

*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
M : Minimally Acceptable
U : Unacceptable
N : Not Inspected/Rated
C : Corrected
A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	12.07	09/25/2012 09/25/2012	Clay Thomas

Levee Mile Report Line	4
Start Levee Mile	0.00
End Levee Mile	12.05
Location	Land Side
Category	Earthen Levee
Item	Vegetation

This photo is of the landside slope at levee mile 12.07.

cathom_f_20121005_207.JPG



Levee Mile Report Line	5
Start Levee Mile	0.00
End Levee Mile	12.05
Location	Water Side
Category	Earthen Levee
Item	Vegetation

This photo is of the waterside slope at levee mile 12.07.

cathom_f_20121005_208.JPG



Levee Mile Report Line	6
Start Levee Mile	0.01
End Levee Mile	1.73
Location	Land Side
Category	Earthen Levee
Item	Encroachments

AG ditch landside slope and toe.

cathom_f_20120912_013.jpg



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	12.07	09/25/2012 09/25/2012	Clay Thomas

Levee Mile Report Line	7
Start Levee Mile	1.21
End Levee Mile	1.21
Location	Water Side
Category	Earthen Levee
Item	Encroachments
Levee mile 1.21. This is a photo of the building on the waterside slope.	
cathom_f_20120912_010.jpg	



Levee Mile Report Line	9
Start Levee Mile	2.88
End Levee Mile	2.88
Location	Land Side
Category	Earthen Levee
Item	Encroachments
This photo shows a pipe approximately 24 inch in diameter at the landside toe of the levee, the pipe runs parallel with the levee, they are repairing the existing pipe.	
cathom_f_20120912_016.jpg	



Levee Mile Report Line	9
Start Levee Mile	2.88
End Levee Mile	2.88
Location	Land Side
Category	Earthen Levee
Item	Encroachments
This is looking from the crown of the levee at the pipe repair site. Status of a permit is unknown and no verification of the repair was available.	
cathom_f_20120912_017.jpg	



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	12.07	09/25/2012 09/25/2012	Clay Thomas

Levee Mile Report Line	10
Start Levee Mile	3.85
End Levee Mile	5.37
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Levee mile 5.37. This is a photo of the Ag ditch on the landside slope and toe.

cathom_f_20120912_011.jpg



Levee Mile Report Line	10
Start Levee Mile	3.85
End Levee Mile	5.37
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Ag ditch landside slope and toe.

cathom_f_20120912_012.jpg



Levee Mile Report Line	12
Start Levee Mile	4.37
End Levee Mile	4.37
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey

USACE 2012 Photo #1

USACE2012_FHR_50-9_R_1.jpg



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	12.07	09/25/2012 09/25/2012	Clay Thomas

Levee Mile Report Line	12
Start Levee Mile	4.37
End Levee Mile	4.37
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey

USACE 2012 Photo #2

USACE2012_FHR_50-9_R_2.jpg



Levee Mile Report Line	12
Start Levee Mile	4.37
End Levee Mile	4.37
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey

USACE 2012 Photo #3

USACE2012_FHR_50-9_R_3.jpg



Levee Mile Report Line	14
Start Levee Mile	5.38
End Levee Mile	5.98
Location	Water Side
Category	Earthen Levee
Item	Encroachments

This photo is of the wateside toe of the levee, it does not appear to have been repaired.

cathom_f_20121102_211.JPG



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	12.07	09/25/2012 09/25/2012	Clay Thomas

Levee Mile Report Line	14
Start Levee Mile	5.38
End Levee Mile	5.98
Location	Water Side
Category	Earthen Levee
Item	Encroachments

This photo shows where material has been remove at the waterside toe of the levee.

cathom_f_20121102_212.JPG



Levee Mile Report Line	14
Start Levee Mile	5.38
End Levee Mile	5.98
Location	Water Side
Category	Earthen Levee
Item	Encroachments

This photo shows vehicle traffic has cut into the toe of the levee.

cathom_f_20121102_213.JPG



Levee Mile Report Line	14
Start Levee Mile	5.38
End Levee Mile	5.98
Location	Water Side
Category	Earthen Levee
Item	Encroachments

This photo shows the stockpile has been removed.

cathom_f_20121102_216.JPG



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
M : Minimally Acceptable
U : Unacceptable
N : Not Inspected/Rated
C : Corrected
A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2012

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	12.07	09/25/2012 09/25/2012	Clay Thomas

Levee Mile Report Line	16
Start Levee Mile	5.42
End Levee Mile	5.42
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Levee mile 5.42. This photo shows a building on the landside crown, shoulder and slope.

cathom_f_20120912_009.jpg



Levee Mile Report Line	19
Start Levee Mile	9.79
End Levee Mile	9.79
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Levee mile 9.79. This photo shows a building at the landside toe.

cathom_f_20120912_015.jpg



Levee Mile Report Line	21
Start Levee Mile	11.63
End Levee Mile	11.69
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Landside landscaping levee mile 11.63.

cathom_f_20120912_014.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
M : Minimally Acceptable
U : Unacceptable
N : Not Inspected/Rated
C : Corrected
A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement